



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

IZUMI et al.

Atty. Ref.: 925-197; Confirmation No.

Appl. No. 09/863,266

TC/A.U. 2871

Filed: May 24, 2001

Examiner: Schechter, Andrew

For: ACTIVE SUBSTRATE WITH PIXEL ELECTRODES MADE OF PHOTSENSITIVE
CONDUCTIVE MATERIAL

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

RULE 131 DECLARATION

I, Toshio Kangawa, hereby declare as follows:

1. I am currently employed by Aoyama & Partners, a Japanese law firm having an address at: IMP Building, 1-3-7, Shiomi, Chuo-ku, Osaka, 540-0001, JAPAN. I have been employed by Aoyama & Partners for over 20 years. My job title is "Patent Specialist."

2. As part of my job duties, since at least as early as January 1, 2000, I prepare, file and prosecute patent applications on various inventions for various clients.

3. It is my understanding that Sharp Corporation, headquartered in Osaka, Japan, is the assignee of the above-listed patent application which has been assigned Serial No. 09/863,266. Sharp Corporation is a client of Aoyama & Partners with respect to certain patent matters, and has been, since at least as early as January 1, 2000.

4. On about March 13, 2000, Aoyama & Partners received a "Request for Japanese Patent Application Procedure" from Sharp Corporation with respect to the invention described in the above-listed patent application which has been assigned Serial No. 09/863,266. This "Request for Japanese Patent Application Procedure," dated March 10, 2000, is attached hereto as Exhibit 1. An English translation of this "Request for Japanese Patent Application Procedure," dated March 10, 2000, is attached hereto as Exhibit 2.

5. The "Request for Japanese Patent Application Procedure" (Exhibits 1-2) was created at Sharp on about February 7, 2000 (see the "creation date" in Exhibits 1-2), and was received by Aoyama & Partners on about March 13, 2000 (see the date and stamp on the first page of Exhibit 1).

6. The first two pages of Exhibit 1, and the first four pages of Exhibit 2, relate to procedural matters. The remainder of Exhibits 1-2 describe the invention claimed in the above-listed patent application which has been assigned Serial No. 09/863,266. For instance, the "Request for Japanese Patent Application Procedure", dated March 10, 2000, includes five drawing figures which correspond to Figs. 1-4 and 7-8 of 09/863,266 (Exs. 1-2).

7. Exs. 1-2 attached hereto, the "Request for Japanese Patent Application Procedure" dated March 10, 2000, describe and illustrate an active matrix substrate comprising (referring to the English translation at Ex. 2):

(a) switching elements disposed in a shape of a matrix; gate signal lines controlling the switching elements; source signal lines connected to the switching elements and formed orthogonal to the gate signal lines (e.g., Figs. 1-6, accompanying text, and claim 1 of Ex. 2);

(b) an interlayer insulating film formed over at least the switching elements, the gate signal lines, and the source signal lines; and pixel electrodes formed over at least the interlayer insulating film and in electrical communication with respective switching elements through contact holes defined in the interlayer insulating film (e.g., Figs. 1-6, accompanying text, and claim 1 of Ex. 2);

(c) wherein the pixel electrodes are comprised of a photosensitive conductive material, wherein the photosensitive conductive material of the pixel electrodes has negative type photosensitivity so that only exposed portions thereof remain, and wherein the gate signal lines and the source signal lines are used as masks during exposure of the negative type photosensitive conductive material of the pixel electrodes from a back side of the substrate so that an array of pixels of the substrate have substantially uniform parasitic capacitance between pixel electrodes and signal lines (e.g., Figs. 1-6, and accompanying text);

(d) wherein the photosensitive conductive material is transparent (e.g., Figs. 1-6, and accompanying text, and claim 2 of Ex. 2); and

(e) wherein the photosensitive conductive material is made from photosensitive resin and conductive particles dispersed in the photosensitive resin. The "Request for Japanese Patent Application Procedure" dated March 10, 2000 also describes that the pixel electrodes are comprised of a photosensitive conductive material including at least one coloring agent so that at least some of the pixel electrodes function as both pixel electrodes and color filters.

8. The respective inventions of claims 19-21 in the Amendment file June 1, 2004 in 09/863,266 are fully supported and described in the "Request for Japanese Patent Application Procedure" dated March 10, 2000 (Exs. 1-2).

9. Attached as Ex. 3 hereto is a "Concept Card" created at Sharp, dated February 4, 2000, relating to the inventions described in the "Request for Japanese Patent Application Procedure" dated March 10, 2000, and 09/863,266.

10. Attached as Ex. 4 hereto is a Sharp internal report, dated March 29, 2000, relating to the inventions described in the "Request for Japanese Patent Application Procedure" dated March 10, 2000, and 09/863,266.

11. On March 13, 2000, our firm received the "Request for Japanese Patent Application Procedure" dated March 10, 2000 from Sharp. Thereafter, the case was assigned to me and I began work on preparing a formal patent application for the instant inventions. After much work on preparing the application, I finalized and sent a draft of the formal patent application to Sharp on May 23, 2000.

13. The May 23, 2000 application draft that I prepared and sent to Sharp was essentially the same as JP 2000-165848, filed with the Japanese Patent Office on June 2, 2000 (a certified copy of JP 2000-165848 has been filed with the USPTO in connection with 09/863,266). Ex. 5 attached hereto is a communication to me from Sharp dated May 29, 2000 indicating that the inventors approved of the May 23, 2000 application draft. The application was then filed with the Japanese Patent Office on June 2, 2000, and is identified as JP 2000-165848.

14. JP 2000-165848 includes all of the information discussed above that was in the "Request for Japanese Patent Application Procedure" dated March 10, 2000 from Sharp (Exs. 1-

2), and also fully supports and describes the inventions set forth in claims 19-21 of the Amendment filed June 1, 2004 in 09/863,266.

15. Ex. 6 attached hereto is a listing of my time records from April 21, 2000 through June 20, 2000. Certain records in Ex. 6 are indicative of work I performed in preparing the forwarding the aforesaid draft patent application to Sharp, and then filing it with the Japanese Patent Office.

16. In view of the above, the inventions set forth in claims 19-21 of the Amendment filed June 1, 2004 in 09/863,266 were invented prior to May 16, 2000, and diligently worked on from a point in time prior to May 16, 2000 up until the filing of JP 2000-165848 on June 2, 2000, which constructively reduced the inventions to practice.

17. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,

By: Toshio Kargawa